Colloids and Surfaces B: Biointerfaces, 2 (1994) 600–603
Elsevier Science B.V.

Contents

(*Abstracted/indexed in: Chemical Abstracts; Current Contents; Physical, Chemical & Earth Sciences; INSPEC; PASCAL/CNRS*)

Vol. 2 Nos. 1–3

Special Issue: Bioadhesion II. A collection of papers presented at an International Conference on the Fundamental Aspects of Bioadhesion and Flocculation and their Implications in Technological, Ecological and Medical Fields, held in Louvain-la-Neuve, Belgium, May 23–27, 1993.

Preface ix

Effects of adhesion on microbial cell physiology
K.C. Marshall and A.E. Goodman (Kensington, N.S.W., Australia) 1

Biofilms and the technological implications of microbial cell adhesion
J.D. Bryers (Bozeman, MT, USA) 9

Clinical relevance of the influence of surface free energy and roughness on the supragingival and subgingival plaque formation in man
M. Quirynen (Leuven, Belgium), H.C. van der Mei (Groningen, The Netherlands), C.M.L. Bollen (Leuven, Belgium), G.I. Geertsema-Doornbusch and H.J. Busscher (Groningen, The Netherlands) and D. van Steenberghe (Leuven, Belgium) 25

Measurement of biofilm of *Pediococcus pentosaceus* and *Pseudomonas fragi* on stainless steel surfaces
G. Wirtanen and T. Mattila-Sandholm (Espoo, Finland) 33

Polysaccharide production and biofilm formation by *Pseudomonas fluorescens*: effects of pH and surface material
R. Oliveira, L. Melo, A. Oliveira and R. Salgueiro (Braga, Portugal) 41

Chemical and physicochemical properties of *Escherichia coli*: variations among three strains and influence of culture conditions
H. Latrache (Châtenay-Malabry, France), N. Mozes (Louvain-la-Neuve, Belgium), C. Pelletier and P. Bourlioux (Châtenay-Malabry, France) 47

Role of electrostatic interactions in the adhesion of *Pseudomonas fragi* and *Brochothrix thermosphacta* to meat
S. Bouttier, K.G. Han and C. Ntsama (Châtenay-Malabry, France), M.N. Bellon-Fontaine (Massy, France) and J. Fourniat (Châtenay-Malabry, France) 57

Analysis of wild-type and plasmid-cured *Thermus* spp. by X-ray photoelectron spectroscopy
K.M. Nordström (Espoo, Finland) and N. Mozes (Louvain-la-Neuve, Belgium) 67

Physicochemical characteristics of two pairs of coagulase-negative staphylococcal isolates with different plasmid profiles
H.J. Busscher (Groningen, The Netherlands), H. Bialkowska-Hobrzanska and G. Reid (London, Ont., Canada), M. van der Kuijl-Booij and H.C. van der Mei (Groningen, The Netherlands) 73

Activity of chlorhexidine against *Escherichia coli* growing as biofilms on inert solid phase
G. Dusart, M. Zuccarelli, J.L. Jeannot and M. Simeon de Buochberg (Montpellier, France) 83

Susceptibility to antibacterials and compared metabolism of suspended bacteria versus embedded bacteria in biofilms
E. Le Magrex, L. Brisset, L.F. Jacquelin and J. Carquin (Reims, France), N. Bonnaveiro (Marseille, France) and C. Choisy (Reims, France) 89

Activity of immobilized and suspended thiobacilli — monitoring immobilization kinetics
C. Plas, P. Holubar and R. Braun (Wien, Austria) 97

The use of bioluminescent *Salmonella* to study freezing and heating effects upon attached cells
V.K. Dhir, C.E.R. Dodd and W.M. Waites (Loughborough, UK) 103

Adhesion of *Klebsiella pneumoniae* to human epithelial cells and influence of protamine
R. Traore, P. Boussard and M. Devleeschouwer (Brussels, Belgium) 111

Colloids and Surfaces B: Biointerfaces, 2 (1994) 600–603
Elsevier Science B.V.

Contents

(*Abstracted/indexed in: Chemical Abstracts; Current Contents; Physical, Chemical & Earth Sciences; INSPEC; PASCAL/CNRS*)

Vol. 2 Nos. 1–3

Special Issue: Bioadhesion II. A collection of papers presented at an International Conference on the Fundamental Aspects of Bioadhesion and Flocculation and their Implications in Technological, Ecological and Medical Fields, held in Louvain-la-Neuve, Belgium, May 23–27, 1993.

Preface ix

Effects of adhesion on microbial cell physiology
K.C. Marshall and A.E. Goodman (Kensington, N.S.W., Australia) 1

Biofilms and the technological implications of microbial cell adhesion
J.D. Bryers (Bozeman, MT, USA) 9

Clinical relevance of the influence of surface free energy and roughness on the supragingival and subgingival plaque formation in man
M. Quirynen (Leuven, Belgium), H.C. van der Mei (Groningen, The Netherlands), C.M.L. Bollen (Leuven, Belgium), G.I. Geertsema-Doornbusch and H.J. Busscher (Groningen, The Netherlands) and D. van Steenberghe (Leuven, Belgium) 25

Measurement of biofilm of *Pediococcus pentosaceus* and *Pseudomonas fragi* on stainless steel surfaces
G. Wirtanen and T. Mattila-Sandholm (Espoo, Finland) 33

Polysaccharide production and biofilm formation by *Pseudomonas fluorescens*: effects of pH and surface material
R. Oliveira, L. Melo, A. Oliveira and R. Salgueiro (Braga, Portugal) 41

Chemical and physicochemical properties of *Escherichia coli*: variations among three strains and influence of culture conditions
H. Latrache (Châtenay-Malabry, France), N. Mozes (Louvain-la-Neuve, Belgium), C. Pelletier and P. Bourlioux (Châtenay-Malabry, France) 47

Role of electrostatic interactions in the adhesion of *Pseudomonas fragi* and *Brochothrix thermosphacta* to meat
S. Bouttier, K.G. Han and C. Ntsama (Châtenay-Malabry, France), M.N. Bellon-Fontaine (Massy, France) and J. Fourniat (Châtenay-Malabry, France) 57

Analysis of wild-type and plasmid-cured *Thermus* spp. by X-ray photoelectron spectroscopy
K.M. Nordström (Espoo, Finland) and N. Mozes (Louvain-la-Neuve, Belgium) 67

Physicochemical characteristics of two pairs of coagulase-negative staphylococcal isolates with different plasmid profiles
H.J. Busscher (Groningen, The Netherlands), H. Bialkowska-Hobrzanska and G. Reid (London, Ont., Canada), M. van der Kuijl-Booij and H.C. van der Mei (Groningen, The Netherlands) 73

Activity of chlorhexidine against *Escherichia coli* growing as biofilms on inert solid phase
G. Dusart, M. Zuccarelli, J.L. Jeannot and M. Simeon de Buochberg (Montpellier, France) 83

Susceptibility to antibacterials and compared metabolism of suspended bacteria versus embedded bacteria in biofilms
E. Le Magrex, L. Brisset, L.F. Jacquelin and J. Carquin (Reims, France), N. Bonnaveiro (Marseille, France) and C. Choisy (Reims, France) 89

Activity of immobilized and suspended thiobacilli — monitoring immobilization kinetics
C. Plas, P. Holubar and R. Braun (Wien, Austria) 97

The use of bioluminescent *Salmonella* to study freezing and heating effects upon attached cells
V.K. Dhir, C.E.R. Dodd and W.M. Waites (Loughborough, UK) 103

Adhesion of *Klebsiella pneumoniae* to human epithelial cells and influence of protamine
R. Traore, P. Boussard and M. Devleeschouwer (Brussels, Belgium) 111

Adhesion of *Pseudomonas aeruginosa* to human buccal epithelial cells: adjustment of a radioisotopic method of measurement
A. Cerf, J.-P. Dehaye, P. Boussard and M. Devleeschouwer (Brussels, Belgium) 119
Experimental infections on surgical sutures: efficiency of polyester threads grafted with antibacterial products
A. Tibi, V. Goury, F. Dermy and J.C. Darbord (Paris, France) 127
Hooks, loops, and the shallow minimum: mechanistic aspects of yeast flocculation
G.B. Calleja (Quezon City, Philippines) 133
Genetic aspects of yeast flocculation: in particular, the role of *FLO* genes in the flocculation of *Saccharomyces cerevisiae*
M. Stratford (Norwich, UK) 151
Yeast flocculation — the role of cell wall proteins
P. Moradas-Ferreira, P.A. Fernandes and M.J. Costa (Porto, Portugal) 159
How important is the physicochemical interaction in the flocculation of yeast cells?
E.H. van Hamersveld, M.C.M. van Loosdrecht and K.Ch.A.M. Luyben (Delft, The Netherlands) 165
Induced cell surface hydrophobicity influences flocculation of brewer's yeast in a flocculation assay
M.H. Straver, G. Smit and J.W. Kijne (Leiden, The Netherlands) 173
Influence of operational parameters on the start-up of a flocculation airlift bioreactor
M.L. Sousa (Porto, Portugal), M. Mota (Braga, Portugal) and J.A. Teixeira (Porto, Portugal) 181
Evidence for a factor produced by *Saccharomyces cerevisiae* which causes flocculation of *Pediococcus damnosus* 12A7 cells
K. Lievens, D. Devogel, D. Iserentant and H. Verachtert (Heverlee, Belgium) 189
Cell surface hydrophobicity and its relation to adhesion of yeasts isolated from fish gut
R. Vázquez-Juárez, T. Andlid and L. Gustafsson (Gothenburg, Sweden) 199
Surface chemical modifications of materials which influence animal cell adhesion — a review
P.C. Schamberger and J.A. Gardella, Jr. (Buffalo, NY, USA) 209
The role of adsorbed proteins in animal cell adhesion
T.A. Horbett (Seattle, WA, USA) 225
Bioadhesion and cell behavior
S.K. Akiyama and S.E. LaFlamme (Bethesda, MD, USA) 241
Adhesion of human mesothelial and endothelial cells to vascular prostheses
C.J. Kirkpatrick, F. Bittinger and C.L. Klein (Mainz, Germany) and A. Dekker (Aachen, Germany) 251
Cultivation of anchorage-dependent mammalian cells and production of various metabolites
A. Kadouri (Rehovot, Israel) 265
Non-linear stability analysis for animal cell adhesion to solid support
D. Gallez (Brussels, Belgium) 273
An interfacial instability approach to erythrocyte adhesion by macromolecules
W.T. Coakley (Cardiff, UK), D. Gallez (Brussels, Belgium), N.E. Thomas and A.J. Baker (Cardiff, UK) 281
Substratum sulfonation and cell adhesion
H.M. Kowalczyńska and J. Kamiński (Warsaw, Poland) 291
Recognition of fibrinogen and basement membrane components as mediators of the adherence of *Aspergillus fumigatus* conidia
J.P. Bouchara, G. Renier, P. Coulot, P. Penn, G. Tronchin and D. Chabasse (Angers, France) 299
Antiproliferative effect and interaction of fucans with cells
M. Ellouali, C. Boisson-Vidal and J. Jozefonvicz (Villetaneuse, France) 305
Inhibitory effect of functional dextrans on rat arterial smooth muscle cell growth in vitro
D. Logeart, T. Avramoglou and J. Jozefonvicz (Villetaneuse, France) 315
The membrane contact seam in adhesion of erythrocytes by polymers
N.E. Thomas and W.T. Coakley (Cardiff, UK), S. Singleton and G. Akay (Wirral, UK) 323
Advances in X-ray photoelectron spectroscopy instrumentation and methodology: instrument evaluation and new techniques with special reference to biomedical studies
B.D. Ratner and D.G. Castner (Seattle, WA, USA) 333
Application of X-ray photoelectron spectroscopy to microorganisms
P.G. Rouxhet, N. Mozes, P.B. Dengis, Y.F. Dufrêne, P.A. Gerin and M.J. Genet (Louvain-la-Neuve, Belgium) 347

The relevance of X-ray photoelectron spectroscopy for analysis of microbial cell surfaces: a critical view
K.C. Marshall, R. Pembrey and R.P. Schneider (Kensington, N.S.W., Australia) 371

Vol. 2 No. 4

Review
Microbial adhesion to biomaterials and infections of the urogenital tract
G. Reid (London, Ont., Canada) 377

Retention of the Gram-negative marine bacterium SW8 on surfaces — effects of microbial physiology, substratum nature and conditioning films
R.P. Schneider and K.C. Marshall (Kensington, N.S.W., Australia) 387
Interaction of melittin analogue with phospholipase A_2 and/or phospholipid: importance of proline-14 to the membrane action of melittin
T. Nishiya, R.T.-T. Lam and D. Robibo (Montreal, Que., Canada) 397
Electrophoretic mobility and hemagglutination of *Treponema denticola* ATCC 33520
M.M. Cowan (Groningen, The Netherlands), F.H.M. Mikx (Nijmegen, The Netherlands) and H.J. Busscher (Groningen, The Netherlands) 407
Excess adsorption of lysozyme and water at solid–liquid interfaces
D. Sarkar and D.K. Chattoraj (Calcutta, India) 411
Application of cationic latex particles for protein separation
Y. Sumi, T. Shiroya, K. Fujimoto, T. Wada, H. Handa and H. Kawaguchi (Yokohama, Japan) 419
Block copolymer micelles as vehicles for hydrophobic drugs
G.S. Kwon, M. Naito, K. Kataoka, M. Yokoyama, Y. Sakurai and T. Okano (Chiba, Japan) 429
Influence of electrostatic forces on IgG adsorption onto polystyrene beads
F. Galisteo-González (Granada, Spain), J. Puig (Barcelona, Spain), A. Martín-Rodriguez (Granada, Spain), J. Serra-Domènech (Barcelona, Spain) and R. Hodalgo-Alvarez (Granada, Spain) 435

Corrigendum 443

Vol. 2 No. 5

Charge distribution in the surface region of chicken and goose erythrocytes
M. Nakamura, H. Ohshima and T. Kondo (Tokyo, Japan) 445
Surface hydrophobicity and electrical properties of *Bacillus subtilis* strains, potential phytopathogen antagonists in tomato crops
M. Paquot, V. Heuze, J. Destain, Ph. Lepoivre, P. Tossut and Ph. Thonart (Gembloux, Belgium) 451
A fluorescence technique for investigating protein adsorption phenomena at a colloidal silica surface
S.R. Clark, P. Billsten and H. Elwing (Linköping, Sweden) 457
Ellipsometry studies of the mucoadhesion of cellulose derivatives
M. Malmsten (Stockholm, Sweden), I. Ljusegren and I. Carlstedt (Lund, Sweden) 463
Albumin grafting on dimethyldichlorosilane-coated glass by gamma-irradiation
K.R. Kamath and H. Park (West Lafayette, IN, USA), H.S. Shim (Irvine, CA, USA) and K. Park (West Lafayette, IN, USA) 471
Human serum albumin adsorption onto octadecyldimethylsilyl–silica gradient surface
Y.S. Lin and V. Hlady (Salt Lake City, UT, USA) 481
A micropipette aspiration technique to investigate the adhesion of endothelial cells
F. Moussy (Edmonton, Alta., Canada), F.Y.H. Lin (Ottawa, Ont., Canada), S. Lahooti, Z. Policova, W. Zingg and A.W. Neumann (Toronto, Ont., Canada) 493

Brief Notes
Cell surface hydrophobicity and flocculence in *Saccharomyces cerevisiae* wine yeasts
G. Suzzi, P. Romano and L. Vannini (Bologna, Italy) 505

Relationship between foaming and flocculence in *Saccharomyces cerevisiae* wine yeasts
P. Romano, G. Suzzi and L. Vannini (Bologna, Italy) 511

Vol. 2 No. 6

Review
Globular proteins at solid/liquid interfaces
C.A. Haynes and W. Norde (Wageningen, The Netherlands) 517

Calcium as a factor influencing the response of *Serratia marcescens* strain SMG40 to growth surfaces
J.P. Gratia (Brussels, Belgium) 567
Improved procedure for wastewater biofilm removal and analysis
V. Pierzo and D. Bellahcen (Le Pecq, France), D. Fontvieille (Le Bourget du Lac, France), V. Lazarova, A Huyard and J. Manem (Le Pecq, France) 577
Surface behaviour of human pancreatic and gastric lipases
L. de La Fournière (Marseille, France), M.G. Ivanova (Sofia, Bulgaria), J.-P. Blond (Dijon, France), F. Carrière and R. Verger (Marseille, France) 585

Author Index 595
Subject Index 597
Contents (Vol. 2) 600